(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(54) Title: ELECTRONIC COMMERCE FOOD SAFETY MANAGEMENT SYSTEM AND METHOD
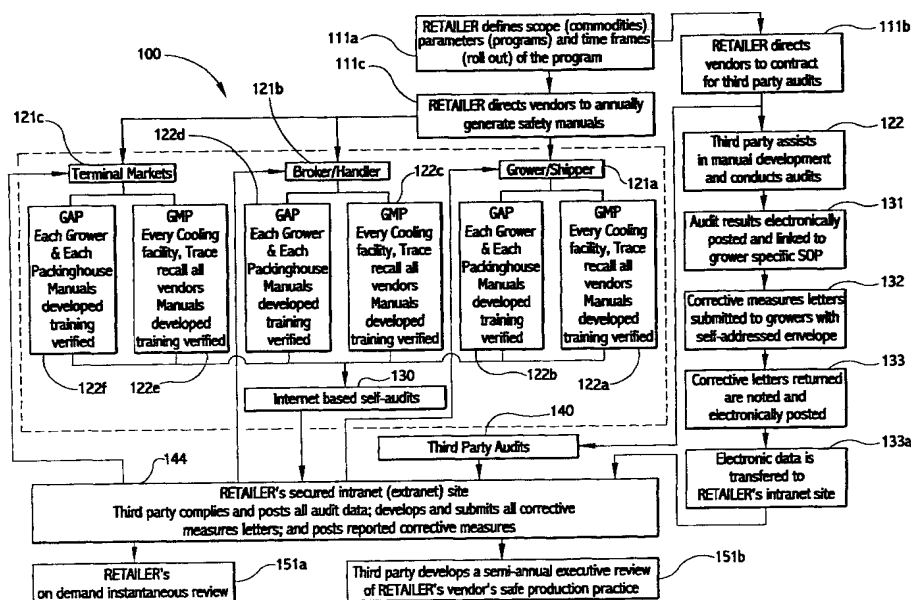
(57) Abstract: An e-commerce based food safety management system (100) and method whereby a food chain participant such as a retailer at a terminal market (121c) can address broker/handler (121b) and grower/shipper (121a) food safety concerns by blending traditional auditing concepts with computer, programming and telecommunications technologies, known as the Internet, to achieve cost efficiencies and performance enhancements that traditional prior art food safety management systems and methods have not achieved.

ELECTRONIC COMMERCE FOOD SAFETY
MANAGEMENT SYSTEM AND METHOD

RELATED APPLICATION

This patent application claims the benefit of U.S. Patent Application Serial No. 60/159,736 filed October 15, 1999.

FIELD OF THE INVENTION

The present invention relates to electronic-commerce (hereinafter e-commerce) based food safety management systems. More particularly, the present invention relates field level e-commerce based food safety management systems that manage food safety concerns across many food industry marketing lines from a grower of food to the retailer that ultimately sell to the consuming public. Even more particularly, the present invention relates to field level e-commerce based food safety management systems that represents a concerted effort by the members of the food industry chain to address food industry wide food safety concerns.

BACKGROUND OF THE INVENTION

Food safety has been and will continue to be a major concern to the consuming public and to the food industry in general. More and more the news headlines concern incidents of a consumer, or groups of consumers of food that have been struck ill because of food contamination. The food product that is contaminated varies from beef meat products, poultry products, vegetables, to fruits. The source of contamination is similarly varied from being poorly refrigerated in transit, in lockers, improperly processed at the processing plants, vegetables laden with chemicals, or microbial growths that have not been adequately washed, or use of irrigation water that affectes the safety of the harvested products, or improper handling of the product from field to market. The food industry is enormous, complex and delicate, especially when the industry must meet the high demands of the consuming public for fresh food at the dinner table. No longer can the harvest season be viewed casually by all in the food market chain. The severity of the problem in the produce industry has gotten presidential attention such that the President has directed the Secretary of Health and Human Services and the Secretary of Agriculture as a Presidential Initiative to issue guidance to the agricultural community in the form of good agricultural practices (GAP) and good

1

agricultural community in the form of good agricultural practices (GAP) and good manufacturing practices (GMP) for fruits and vegetables. The guidance documents address microbial food safety hazards and good agricultural and management practices common to the growing, harvesting, washing, sorting, packing, and transporting of most fruits and vegetables sold to consumers in an unprocessed or minimally processed (raw) form. See generally "Guidance For Industry- GUIDE TO MINIMIZE MICROBIAL FOOD SAFETY HAZARDS FOR FRESH FRUITS AND VEGETABLES," U.S. Department of Health Services, Food and Drug Administration, Center For Food Safety and Applied Nutrition (CFSAN), October 26, 1998, hereinafter "the guide". While the guide is intended to assist the U.S. and foreign industry in enhancing the safety of domestic and imported produce, the implementation of the GAP and GMP guides are not believed to be offered to operators in a form that can be managed for successful implementation to satisfy the food safety accountability objectives of the program throughout the food production chain. The success of the food safety objectives of the guide depend on concerted efforts of the individual produce operator links in the food industry chain. Thus, even if one operator is in compliance with the guide's food safety objectives, if other producers in the same food chain are not in compliance, then the ultimate goal of achieving acceptable food safety quality for the consumer will fail.

By example, in a situation for controlling pesticides, a particular producer's spray practices can be tracked from the time the ground is incorporated (either with or without chemical). There are many chemical industry approved and participating programs that can be used by farmers and advisors that will evaluate the pesticides to be sprayed as to their approval for use on a particular crop and proper rates to re-entry and pre-harvest periods. These programs also have the capability of keeping a computer file history of all spraying done on that piece of land, including previous crops grown. At the level of the farmer or hired applicator there are many safety regulations that are observed. Each sprayer has to be trained in the proper handling and use of all pesticides he may come in contact with and this is documented and remains in his permanent record for County Agricultural Inspections, OSHA, etc. All packaging must be labeled as to agricultural use and handling. At this time it is still mostly all in English, which means this information must be translated to the workers native tongue by his foreman or supervisor. A commonly used computer program in pesticide control is the "Crop Data Management System". This program, however is dedicated to the pesticide

2

industry and is an unconnected link that is not integrated with the overall food chain that involves more than pesticide related concerns that affect food safety. Any interested party, such as a buyer must rely on local records kept by the pesticide applicator or by the local State or County Agricultural Department.

5   Thus, while, retailers and buyers have made attempts to manage food safety concerns from their suppliers, their efforts have been to manually track their food supplier's performance using manual mean that are deemed inadequate due to the enormity of the industry involved. To applicant's knowledge, there are no known food safety management systems, other than the aforementioned non-integrated records keeping methods, that have capitalized

10   on using the national and international computer networks, such as the internet with appropriate computer programming and data storage capability, to manage food safety concerns.

          Accordingly, a need is seen to exist for an e-commerce based food safety management system whereby food safety criteria is controlled in a top-down manner by a food buyer

15   monitoring and assisting a supplier's efforts and performance in implementing acceptable food safety practices.

          It is therefore a primary object of the present invention to provide an e-commerce based food safety management system and method whereby food safety criteria is controlled in a top-down manner by a food buyer monitoring and assisting a supplier's efforts and performance

20   in implementing acceptable food safety practices.

BRIEF SUMMARY OF THE INVENTION

          Accordingly, the foregoing object is accomplished by an e-commerce based food safety management system and method whereby a user, such as a retailer, can address field level food safety concerns by blending traditional auditing concepts with computer, programming and

25   telecommunications technologies, known as the internet, to achieve cost efficiencies and performance enhancements that traditional prior art food safety management systems and methods have not achieved.

BRIEF DESCRIPTION OF DRAWINGS

          For fuller understanding of the present invention, reference is made to the

30   accompanying drawings in the following Detailed Description of the Invention. In the drawings:

3

Figure 1 is a block diagram overview of the e-commerce based food safety management system from a retailer's perspective in accordance with the present invention.

Figure 2 is an expanded block diagram overview of the e-commerce based food safety management system shown in Figure 1.0, in accordance with the present invention.

5   Figure 3 is a print of a computer screen showing an expanded block diagram overview of the e-commerce based food safety management system similar to the block diagram illustration shown in Figure 2.0, in accordance with the present invention.

Figure 4 is a print of a computer screen showing a computer network home page of the e-commerce based food safety management system listing the accessible sites for

10   participating in a food safety program, in accordance with the present invention.

Figure 5 is a print of a computer screen showing a computer network site page listing various produce buyers as participants in the e-commerce based food safety management system, in accordance with the present invention.

Figure 6 is a print of a computer screen showing a particular produce buyer's computer

15   network site page within a database component of the e-commerce based food safety management system, in accordance with the present invention.

Figures 7 and 8 are prints of a computer screen showing a computer network site page listing various produce suppliers as participants in the e-commerce based food safety management system, in accordance with the present invention.

20   Figure 9 is a print of a computer screen showing computer network accessible sites for interactive development of manuals according to a selectable food safety program , in accordance with the present invention.

Figures 10 through 16 are prints of various computer screens showing computer network accessible sites for interactive development of manuals for particular food safety

25   program, in accordance with the present invention.

Reference numbers refer to th same or equivalent parts of the present invention throughout the several figures of the drawing.

DETAILED DESCRIPTION OF THE INVENTION

Figure 1 is a block diagram overview of the e-commerce based food safety management

30   system 100 shown from a retailer's perspective, in accordance with the present invention. As depicted, the overall system is divided into various electronic computer network general sites

4

of participant control, also referred to as modules. The system 100 comprises a field level food safety program based on at least three computer database modules including a document (manuals) development module, a supplier self-auditing module, and a third party auditing module. In total, the overall system 100 include a food retailer (first party) site 110, a food supplier's (second party) site 120, a (second party) self-audit site 130, a third party audit site 140 and another general retailer's (first party) site 150. In practice, a first party retailer would utilize the present invention by developing food safety programs at step 111. This step further includes requiring a plurality of second party supplier participants at step 121 to develop safe food production manuals. The joint participation enables the buyer to convey food safety expectations while the suppliers contribute the time and effort to build operationally specific manuals at step 122. The present invention can be distinquished from prior art supplier participation techniques in that rather than having a third party, or a buyer develop and forcing a generic manual on the food supplier, the supplier can actively participate in developing manuals unique to their operations. Through applicant's use of the Document Development Program (DDP) component of the system at module 120, a supplier can build Good Agricultural Practice (GAP) manuals, Good Manufacturing Practices (GMP) manuals, Standard Operating Procedures (SOP) manuals that are customized to their operation.

In addition to a supplier being in control of developing food safety management manuals that are customized to their specific operation, i.e. by example, to reflect practices common to the growing, harvesting, washing, sorting, packing, or transporting of most fruits and vegetables sold to consumers in an unprocessed or minimally processed (raw) form, a supplier can perform self-audits as indicated at step 130. The Internet based self-audits, when initiated by a supplier at step 131, provide the supplier an equivalent of an educational audit and a means of bench marking their operation. Preferably the services provided at steps 120 and 130 are at no cost to the supplier. The supplier will have an opportunity to take the necessary steps to find out about corrective measures that need to be taken at step 132, and to correct the problem by initiating corrective measures at step 133, in preparation for a third party audit. The food safety manual development at step 120 and self-audit step 130 can be used in combination to generate a corrective measures letter that directs a supplier to a specific page within the supplier's own manual.

As is the case in virtually all food operations, some system of confirmation of

compliance with food safety requirements will eventually be required. The present invention includes third party audit module 140 whereby a third party using the electronic computer network, or Internet, can enter audit data. The third party, such as the previously discussed pesticide operator, can enter audit data that relates to a particular supplier for review by a retailer. The module or site 140 is analogous to the entry of self-audit data at step 130, discussed above and include the third party audit initiative at step 141, the generation of corrective measures letters at step 142, the corrective measures implementation letter at step 143, concluding in the posting of the audit findings at step 144. The present invention maintains uniformity in the auditing process by applying standard auditing criteria within module 140. The buyer, participating in the food safety management system, is provided access at module 150 to review audit results. By example, Figure 11 depicts a print of a computer screen showing a food safety program audit overview, as well as a listing of the types of audit programs available. These audit programs are incorporated herein by reference.

Figure 2 is an expanded block diagram overview of the e-commerce based food safety management system 100 shown in Figure 1.0. Step 111 is expanded to include step 111a where a retailer defines the scope (commodities), the parameters (programs) and time frames (roll out) of the food safety program to be monitored. The retailer determines the suppliers that will participate in the food safety program and also determines the third party(s) who will be auditing the supplier's performance at step 111b and 111c. Figure 2 depicts the steps 122 where the supplier develops the operational manual as discussed previously and conducts self audits, the process continues at step 131 where the supplier's audit results are electronically posted and linked to the supplier's specific SOP. The results of the audit generates corrective measures letters at step 132 that requires corrective action by the supplier. Any corrective action taken by a supplier is entered in to the system at step 133 and subsequently into a retailers database, or intranet site 144, via a transfer link at step 133a. Figure 2 lumps the third party auditing at single block 140 where the third party engages in audits that a second party supplier has previously conducted as self-audits at module 120 and steps 131. Figure 2 further depicts an expanded look at the various participant suppliers, depicted at blocks 121a, 121b, and 121c. Each participating supplier agrees to generate appropriate safety manuals of operation in accordance with their particular business and the food safety practice involved, as depicted in process at process blocks 122a, 122b, 122c, 122d, 122e, and 122f.. Thus, a

6

supplier that fits being a grower/shipper at 121a would address appropriate GMP and GAP food safety issues at 122a and 122b by developing manuals for that purpose. The management system 100 as shown in Figure 2 shows the self-auditing module 130 linked to the intranet site 144 that is accessible to a retailer at step 151a for instantaneous review and by a third party consultant at 151b that develops a semi-annual executive review of the retailer's suppliers safe production practices.

Figure 3 is a print of a computer screen showing an expanded block diagram overview of applicant's assignee's e-commerce based food safety management system 100. Figure 3. is similar to the system overview shown in Figure 2.0 and the operative steps for module 110, 120, 130, 140 and 150 may be mapped to apply to Figure 3.0. A participant in the food safety management system 100 would initially get onto the electronic computer network, i.e. the Internet, and make on-line selections for the particular module of interest. Figure 4 is a print of a computer screen showing a computer network home page of the e-commerce based food safety management system 100. The home page lists, inter alia, the modules for produce buyers, the modules for produce suppliers, the module for the manual document development, the food safety programs available, and the intranet module. Thus, Figure 5 shows a print of a computer screen showing a computer network site page listing various produce buyers as participants in the e-commerce based food safety management system. The particular buyer participant can be selected for accessing their audit data. Figure 6 shows a print of a computer screen showing a particular produce buyer's computer network site page that is within the produce buyer database component of the e-commerce based food safety management system. An id and password security feature for accessing the audit data is incorpoated into the module. Similarly, Figures 7 and 8 are prints of a computer screen showing a computer network site page listing various produce suppliers as participants in the e-commerce based food safety management system. Figure 9 is a print of a computer screen showing computer network accessible sites for interactive development of manuals according to a selectable food safety program , in accordance with the present invention. A participant in the food management system would select from the main home page shown in Figure 4, the document development selection to gain access to that site. Figure 9 in particular shows the English version module for the document development program (DDP) for creating manuals that incorporate the GAP and GMP guidelines for including in their own specific manual. The

7

DDP module is available also in Spanish. In addition to the GAP and GMP guidelines, the site also includes guidelines for creating manuals concerning General Sanitation Standard Operating Procedures (SSOP), and Product Recall Prograrms.   Figures 10 through 16 are prints of various computer screens showing computer network accessible sites for interactive

5   development of manuals for particular food safety program. Figure 10 shows the list of the food satety programs, Figure 11 shows and audit overview, Figure 12 shows a site for packing shed food safety audit guidelines, Figure 13 shows a field auditing site guideline for incorporating into a manual, Figure 14 shows food safety auditing guidelines for cooling facilities, Figure 15 recaps the objectives of the food safety manual development program and

10   the guidelines available, and Figure 16 de

scribes the trace recall guidelenes to be incorporated for recalling distributed food that may be defective or harmful for consumer's health.

The present invention has been particularly shown and described with respect to a certain preferred embodiments and features thereof. However, it should be readily apparent

15   to those of ordinary skill in the art that various changes and modifications in the system arrangement and method steps may be made without departing from the spirit and scope of the inventions as set forth in the appended claims.

CLAIMS

What is Claimed is:

1. An e-commerce based food safety management system, said system comprising:

a first on-line database for developing at least one on-line food safety oriented production manual, said on-line database having food safety criteria data for producing safe food production process steps required by a first party that provide instructions to a second party for achieving
5   a threshold level of acceptable food safety objectives;

a second on-line database for facilitating a third party audit to verify compliance by said second party with said threshold level of acceptable food safety objectives; and

a third on-line database for storing audit data generated by said third party audits and for storing corrective measures data submitted by said second party for generating food safety related
10   reports by said first party.

2. An e-commerce based food safety management system as described in claim 1, said system further comprising:

a fourth on-line database for facilitating on-line self-audits, said self-audits being used for preparing for said third party audits and for establishing a benchmark for evaluating a user's
5   existing practices.

3. An e-commerce based food safety management system as described in claim 2, wherein:

said first, second, third and fourth on-line databases comprises being formatted for being manipulated in a language selected from a language group including at least English and Spanish language formats.

4. An e-commerce based food safety management system as described in claim 2, wherein:

said fourth on-line database comprises being formatted for yes-no input data.

5. An e-commerce based food safety management system as described in claim 2, wherein:

said second and fourth on-line databases comprises a letter grade severity scoring system, wherein an A letter grade represents the existence of critical questions prohibiting sourcing, a

B letter grade represents a requirement of rapid implementation of corrective action, and a C letter grade represents practices that are less than desirable with corrective action encouraged.

6. An e-commerce based food safety management system as described in claim 1, wherein:
said first on-line database comprises good agricultural practices (GAP) food safety criteria data.

7. An e-commerce based food safety management system as described in claim 1, wherein:
said first on-line database comprises good manufacturing practices (GMP) food safety criteria data.

8. An e-commerce based food safety management system as described in claim 1, wherein:
said first on-line database comprises standard operating procedures (SOP) food safety criteria data.

9. An e-commerce based food safety management system as described in claim 1, wherein:
said first on-line database comprises trace recall food safety criteria data.

10. An e-commerce based food safety management system as described in claim 1, wherein:
said first party comprises a produce buyer entity.

11. An e-commerce based food safety management system as described in claim 1, wherein:
said second party comprises a food supplier selected from a a group of food suppliers comprising produce growers, produce shippers, produce brokers and produce terminal market suppliers.

12. An e-commerce based method for managing food safety concerns, said method comprising the steps of:
providing a first on-line database for developing at least one on-line food safety oriented production manual, said on-line database having food safety criteria data for producing safe food production process steps required by a first party that provide instructions to a second party for

10

achieving a threshold level of acceptable food safety objectives;

      providing a second on-line database for facilitating a third party audit to verify compliance by said second party with said threshold level of acceptable food safety objectives; and

10   providing a third on-line database for storing audit data generated by said third party audits and for storing corrective measures data submitted by said second party for generating food safety related reports by said first party.

13. An e-commerce based method for managing food safety concerns as described in claim 12 further comprising the step of:

      providing a fourth on-line database for facilitating on-line self-audits, said self-audits being used for preparing for said third party audits and for establishing a benchmark for

5   evaluating a user's existing practices.

14. An e-commerce based method for managing food safety concerns as described in claim 13, wherein:

      said steps of providing said first, second, third and fourth on-line databases comprises formatting said databases for being manipulated in a language selected from a language group

5   including at least English and Spanish language formats.

15. An e-commerce based method for managing food safety concerns as described in claim 14, wherein:

      said step of providing said fourth on-line database comprises formatting said fourth on-line database for yes-no input data.

16. An e-commerce based method for managing food safety concerns as described in claim 13, wherein:

      said step of providing said second and fourth on-line databases comprises providing a letter grade severity scoring system, wherein an A letter grade represents the existence of critical

5   questions prohibiting sourcing, a B letter grade represents a requirement of rapid implementation of corrective action, and a C letter grade represents practices that are less than desireable with

corrective action encouraged.

17. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said step of providing a first on-line database comprises providing a good agricultural practices (GAP) food safety criteria database.

18. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said step of providing a first on-line database comprises providing a good manufacturing practices (GMP) food safety criteria database.

19. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said step of providing a first on-line database comprises providing a standard operating procedures (SOP) food safety criteria database.

20. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said step of providing a first on-line database comprises providing a trace recall food safety criteria database.

21. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said first party comprises a produce buyer entity.

22. An e-commerce based method for managing food safety concerns as described in claim 12, wherein:

said second party comprises a food supplier selected from a group of food suppliers comprising produce growers, produce shippers, produce brokers and produce terminal market suppliers.

23. An e-commerce based food safety management system, said system comprising:

a first on-line database for developing at least one on-line food safety oriented production manual, said on-line database having food safety criteria data for producing safe food production process steps required by a first party that provide instructions to a second party for achieving a threshold level of acceptable food safety objectives;

a second on-line database for facilitating a third party audit to verify compliance by said second party with said threshold level of acceptable food safety objectives;

a third on-line database for storing audit data generated by said third party audits and for storing corrective measures data submitted by said second party for generating food safety related reports by said first party; and

a fourth on-line database for facilitating on-line self-audits, said self-audits being used for preparing for said third party audits and for establishing a benchmark for evaluating a user's existing practices.

24. An e-commerce based food safety management system as described in claim 23, wherein:

said first, second, third and fourth on-line databases comprises being formatted for being manipulated in a language selected from a language group including at least English and Spanish language formats.

25. An e-commerce based food safety management system as described in claim 23, wherein:

said fourth on-line database comprises being formated for yes-no input data.

26. An e-commerce based food safety management system as described in claim 23, wherein:

said second and fourth on-line databases comprises a letter grade severity scoring system, wherein an A letter grade represents the existence of critical questions prohibiting sourcing, a B letter grade represents a requirement of rapid implementation of corrective action, and a C letter grade represents practices that are less than desireable with corrective action encouraged.

27. An e-commerce based food safety management system as described in claim 23, wherein:

said first on-line database comprises good agricultural practices (GAP) food safety

13

criteria data.

28. An e-commerce based food safety management system as described in claim 23. wherein:
    said first on-line database comprises good manufacturing practices (GMP) food safety
criteria data.

29. An e-commerce based food safety management system as described in claim 23. wherein:
    said first on-line database comprises standard operating procedures (SOP) food safety
criteria data.

30. An e-commerce based food safety management system as described in claim 23, wherein:
    said first on-line database comprises trace recall food safety criteria data.

31. An e-commerce based food safety management system as described in claim 23. wherein:
    said first party comprises a produce buyer entity.

32. An e-commerce based food safety management system as described in claim 23. wherein:
    said second party comprises a food supplier selected from a a group of food suppliers
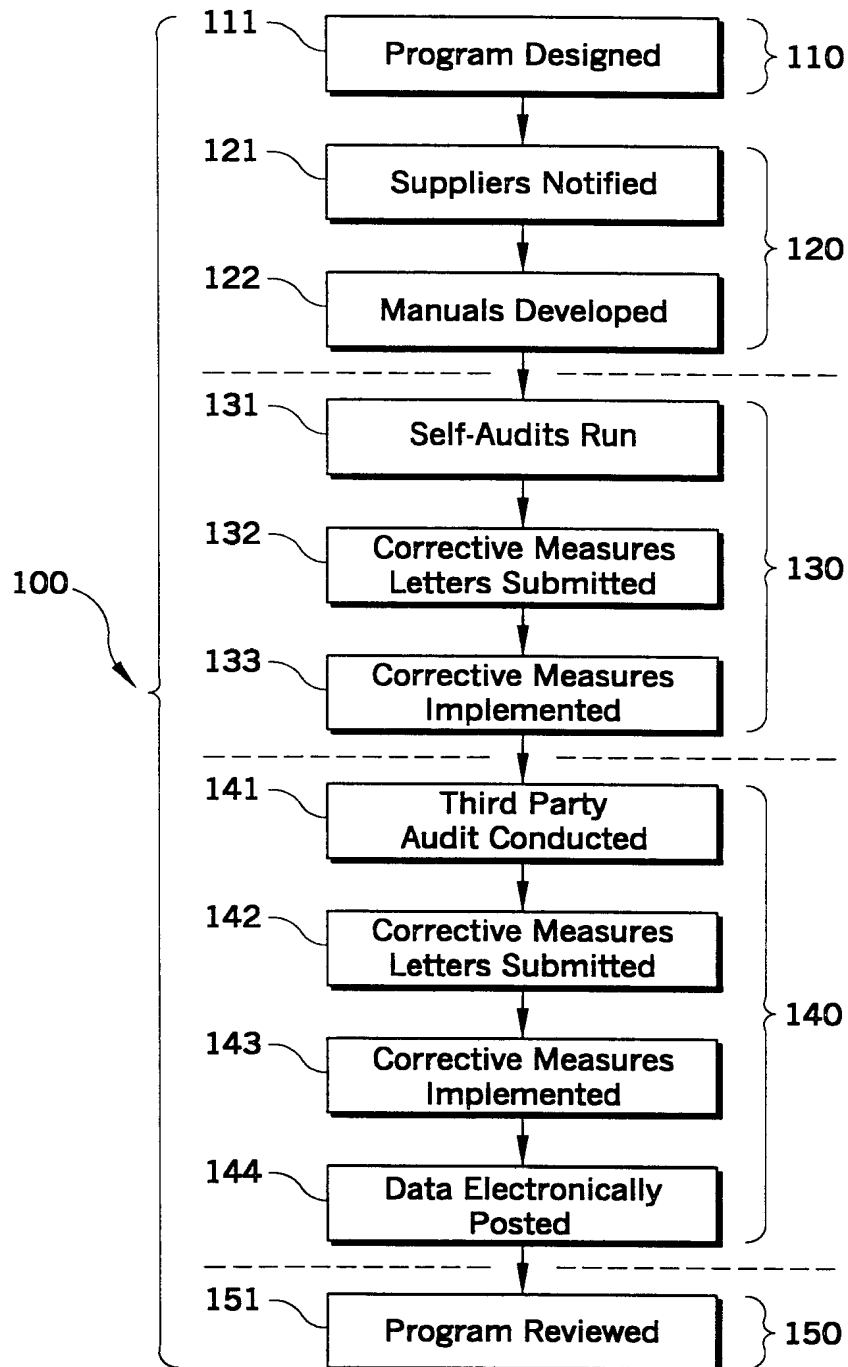comprising produce growers, produce shippers. produce brokers and produce terminal market
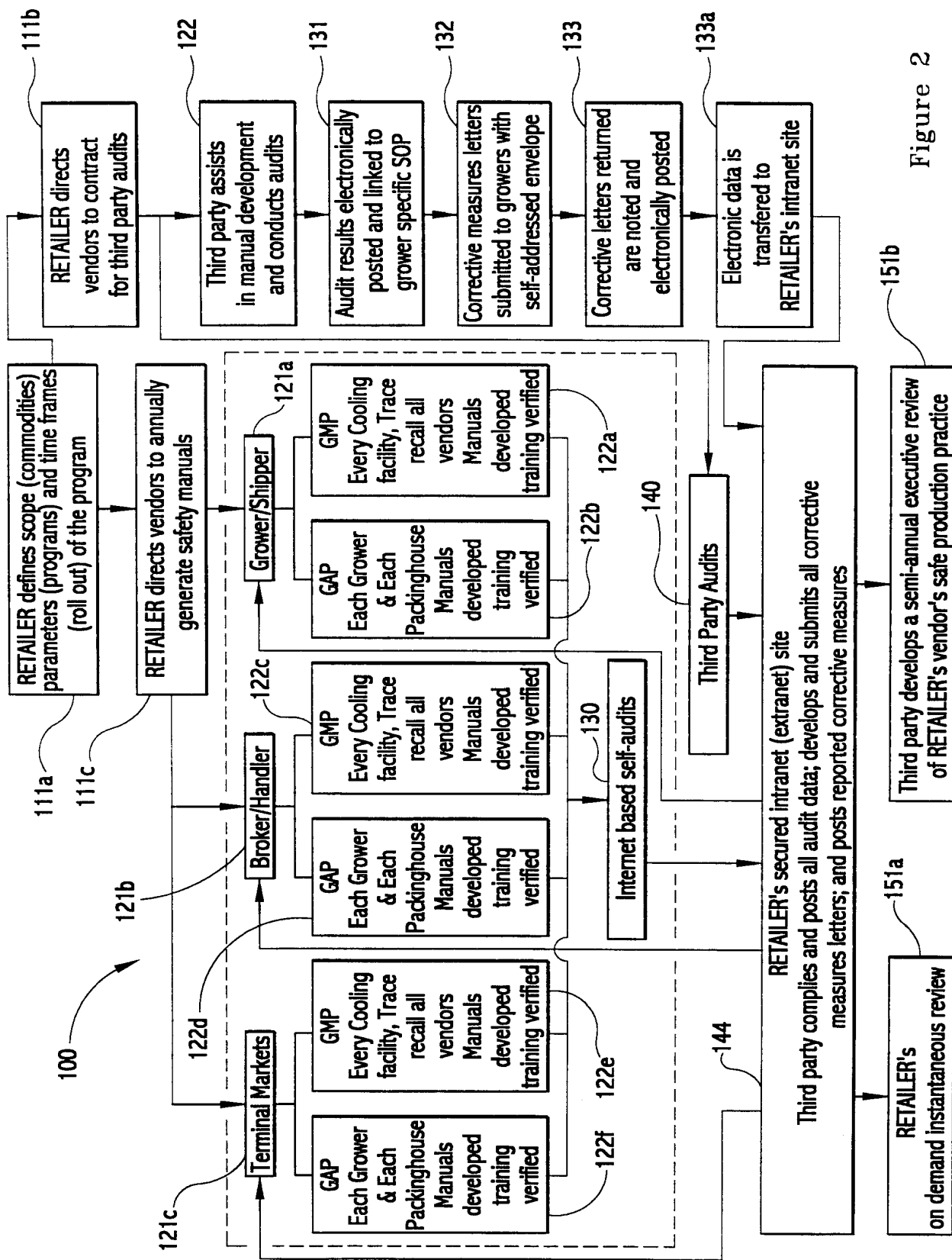suppliers.

Figure 1

Figure 2

Fresh Produce Industry Internet Based GAP Program

Buyer & Vendor
Define program and direct
Supply chain participants to generate safety
manuals through PrimusLabs.com's
DDP

Vendor & Buyer
Direct supply chain participants to
contract for third party audits

PrimusLabs.com
Assists in manual development and
conducts audits

PrimusLabs.com
Electronically posts audit results and
links to grower specific SOP

PrimusLabs.com
Submits corrective measures letters to
shippers

Vendor
Returns corrective letters to
PrimusLabs.com

PrimusLabs.com
Transfers electronic data to buyer's
intranet site

Grower   Shipper   Broker   Terminal Markets
All Growers & Packing Houses   All Cooling Facilities   All Vendors
Safe Production Manuals

GAP   GMP   SOP   Trace Recall   Etc.

Verify training with Internet based self-audits

Third Party Audits
Utilize a standardized format from
www.primuslabs.com

PrimusLabs.com
Maintains buyer's secured intranet site
Compiles and posts all audit data; develops and submits all corrective measures letters;
and can post reported corrective measures on request

Buyer
Reviews on demand

PrimusLabs.com
Develops a semi-annual executive
review of buyer's vendors' safe
production practices

☒ Option 1
☐ Option 2

Figure 3

---- Services provided at no charge
GAP (Good Agricultural Practices)
GMP(Good Manufacturing Practices)
SOP(Standard Operating Procedures)
DDP(PrimusLabs.com's Document
Development Program)

4/14

Figure 4

5/14

document development
food safety programs ● ● ● industry issues
produce suppliers ● ● about primuslabs.com
produce buyers ● home ● contact us

forum ✦ site map
intranet ▽ search

primus labs .com   ⌐ produce buyers ●

english | spanish

Good Morning! Today is Friday October 15th, 1999

⊏➡⊐ Albertson's
⊏➡⊐ Frieda's
⊏➡⊐ Safeway
⊏➡⊐ Subway

⊏➡⊐ Raw Audit Results Demo

Figure 5

SAFEWAY
Nobody Does It Better
Verifying User Security for Intranet Site
Please Sign In

Web Site Login ID:	
Password:	
	Login	Go Back

Approved Safeway Auditors

- PRIMUSLABS.COM
- NANCY E. NAGLE, Ph.D.
- ANTHONY HEPTON, Ph.D.
- American Institute of Baking
- Davis Fresh Technologies LLC
- Scientific Certification Systems

Figure 6

document development
food safety programs   industry issues
produce suppliers   about primuslabs.com
produce buyers   home   contact us

forum   site map

intranet   search

english   spanish

primus labs.com | **produce suppliers**
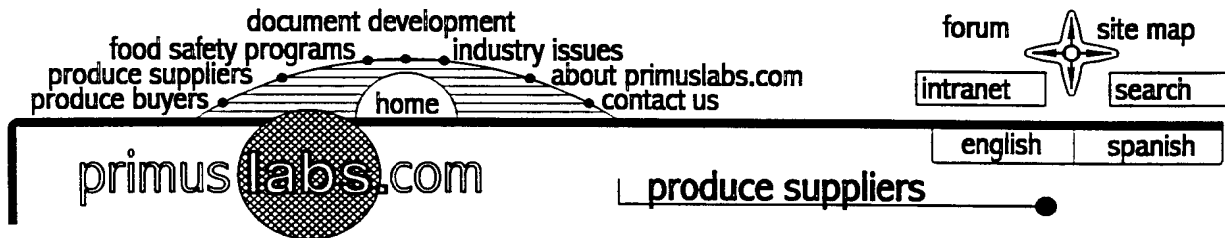
Partners With PrimusLabs.com For Food Safety Clients with Current Program(s)		
Agricola Beltran • Certified Pesticide Residue	Andrew & Williamson • Field Audit/GAP	Babe Farms, Inc. • Certified Pesticide Residue • Fresh-Cut HACCP/GMP • Field Audit/GAP
Big E Produce, Inc. • Field Audit/GAP	Boggiatto Produce, Inc. • Certified Pesticide Residue • Field Audit/GAP	BoniPak Produce Company • Field Audit/GAP
Byrd Farms • Field Audit/GAP	Frank Capurro & Son • Certified Pesticide Residue • Fresh-Cut HACCP/GMP • Field Audit/GAP	Christopher Ranch • Fresh-Cut HACCP/GMP
Colorado Greenhouse • Good Greenhouse Practices	CT Produce • Certified Pesticide Residue • Field Audit/GAP	Driscoll Strawberries • Field Audit/GAP
E.V.S.F. • Field Audit/GAP	Expo Fresh • Certified Pesticide Residue • Field Audit/GAP	Fresh Valley Produce • Certified Pesticide Residue • Field Audit/GAP
Frieda's • Supplier Doc Review Program	Gills Onions • Certified Pesticide Residue	Gold Coast • Fresh-Cut HACCP/GMP
Great Northern Produce • Fresh-Cut HACCP/GMP	Growers Vegetable Express • Field Audit/GAP	Horton Fruit Company • Fresh-Cut HACCP/GMP
J.S. McManus • Fresh-Cut Products	Kaprielian Brothers • Packing Operations	Kelomar, Inc. • Fresh-Cut HACCP/GMP
Kirk Produce • Field Audit/GAP	MAS Melons & Grapes • Certified Pesticide Residue • Field Audit/GAP	McAfee Apple Gardens • Field Audit/GAP
Meyer Tomatoes • Certified Pesticide Residue • Field Audit/GAP	Mills, Inc. • Field Audit/GAP	NewStar Fresh Foods • Certified Pesticide Residue • Field Audit/GAP
Noreast Fresh, Inc. • Fresh-Cut HACCP/GMP	Pride of San Juan • Fresh-Cut HACCP/GMP	Prime Time International • Certified Pesticide Residue

Figure 7

7/14

Peter Rabbit Farms • Fresh-Cut HACCP/GMP	Ramco Harvesting • Field Audit/GAP	River Ranch Fresh Foods • Certified Pesticide Residue • Field Audit/GAP
Sales King International • Certified Pesticide Residue	Sanbon • Certified Pesticide Residue	San Miguel Produce • Fresh-Cut HACCP/GMP
Santa Cruz Empacadora • Certified Pesticide Residue	SiasMex	Simonian Fruit Company • Certified Pesticide Residue
Teixeira Farms, Inc. • Field Audit/GAP	Underwood Ranches • Fresh-Cut HACCP/GMP	Watsonville Produce • Fresh-Cut HACCP/GMP

Figure 8

document development
food safety programs   industry issues
produce suppliers   about primuslabs.com
produce buyers   home   contact us

forum   site map
intranet   search
english   spanish

primus labs.com   document development
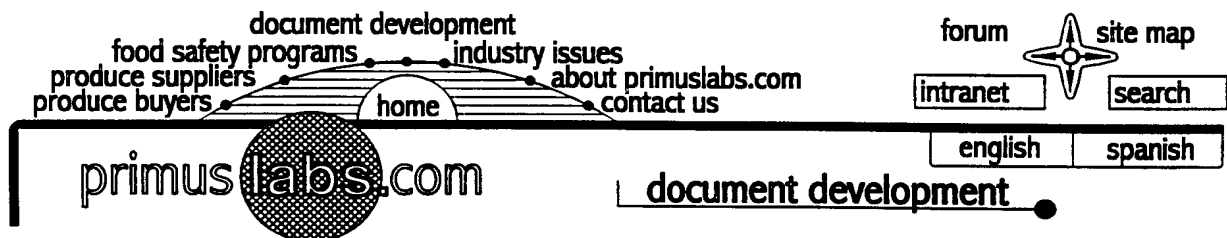
Click Link Below to Enter The:
DOCUMENT DEVELOPMENT PROGRAM-ENGLISH VERSION

Online Printable Manuals

- GAP Manuals-English & Spanish
- GMP Packinghouse Manual-English
- Trace Recall Manual-English & Spanish

The following Manuals can be created and will be printed soon!

- GMP Packinghouse Manual (Spanish)
- GMP Cooling Facility Manual (English & Spanish)

- Dr. Nancy Nagle of Nagle Resources will be editing PrimusLab.com's Document
Development Program
- Dr. Anthony Hepton to assist PrimusLabs.com in editing Document Development
Program

The following program is a step by step easy to use interactive manual builder. The
manuals are designed to help shippers, growers, and produce suppliers reduce the risk
of microbial, chemical and physical contamination from the field to the distribution of
fresh produce. It also helps keep in compliance with existing and evolving United
States safe production guidelines and regulations. It is provided as a service from
PrimusLabs.com for anyone to use at no cost.

This program through a series of yes/no and short answer questions, enables users to
develop manuals covering:

Good Manufacturing Practice (GMP) Guidelines for

- Packing Sheds
- Cooling Facilities
- Cold Storage Facilities

General Sanitation Standard Operating Procedures (SSOP)

Good Agricultural Practices (GAP) for the field
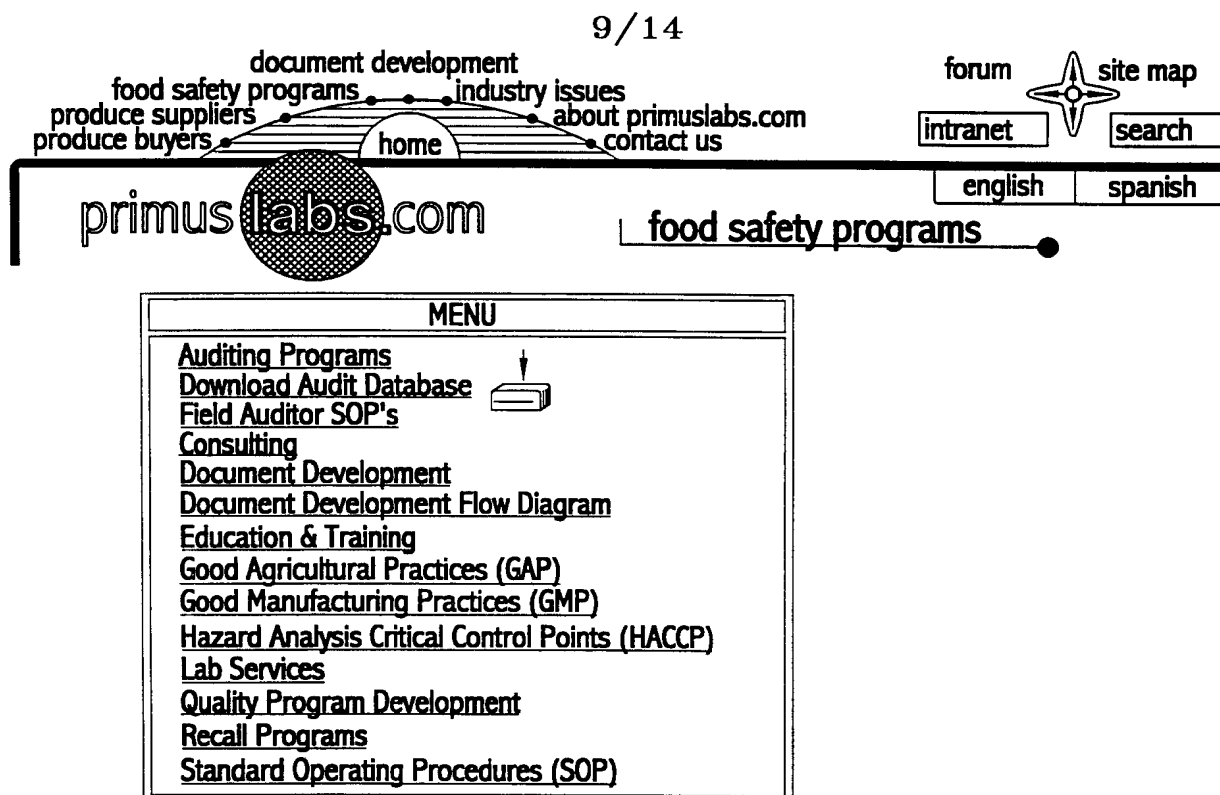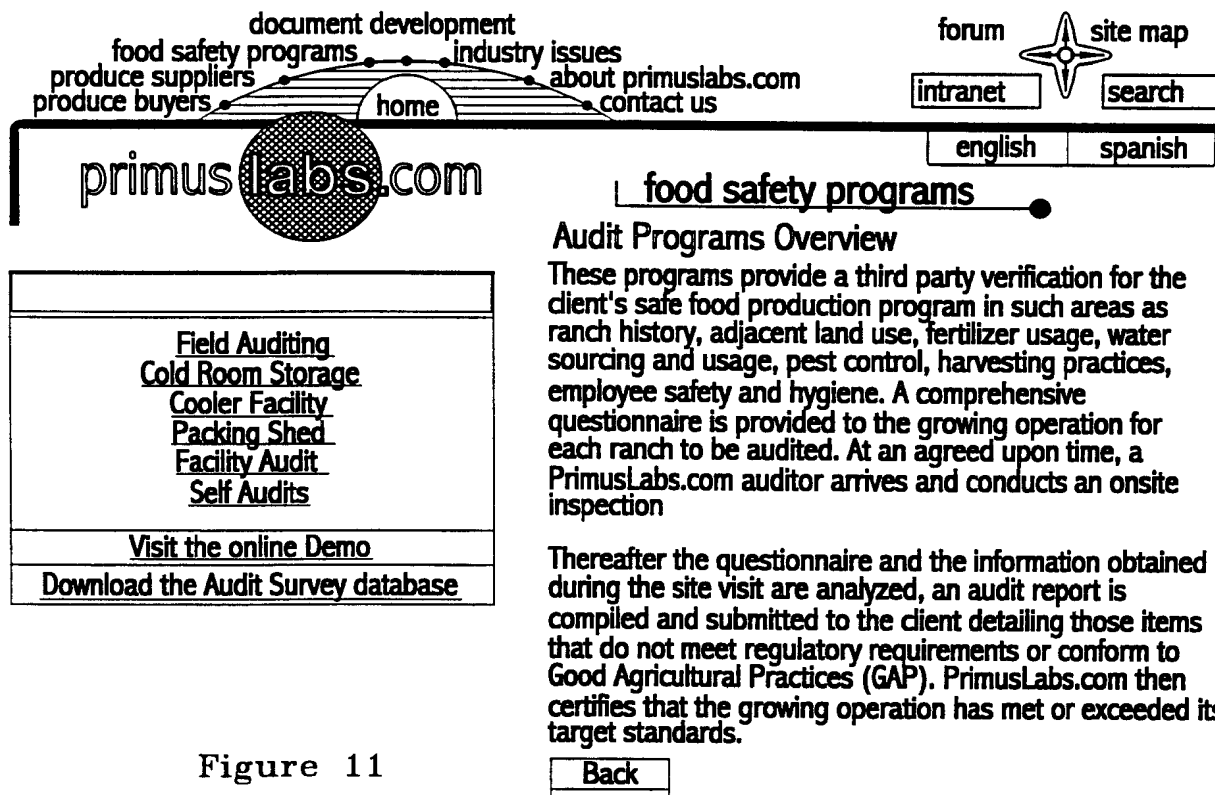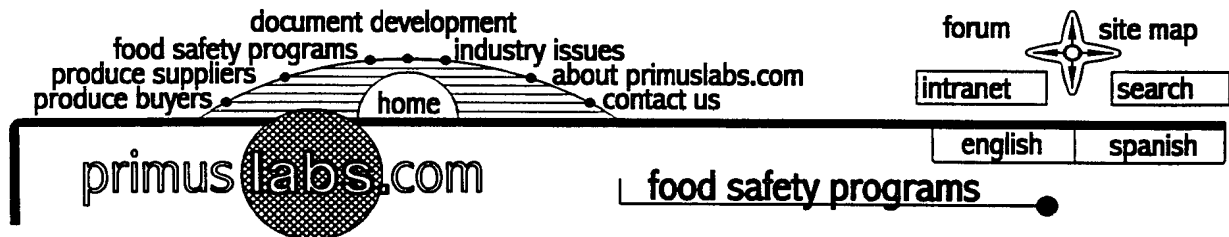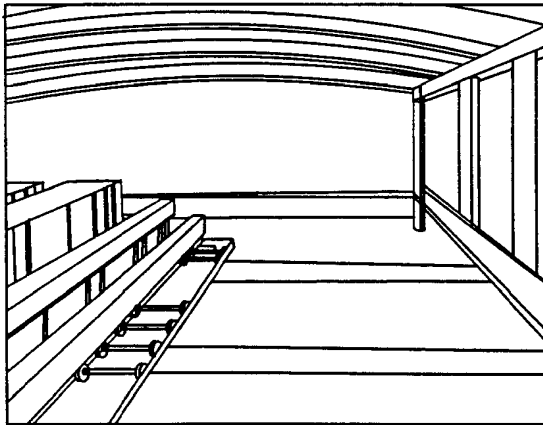
Product Recall Programs

Figure 9

SUBSTITUTE SHEET (RULE 26)

9/14

document development
food safety programs ● ● ● industry issues
produce suppliers ● ● ● about primuslabs.com
produce buyers ● ● home ● contact us

forum ✦ site map
intranet ▽ search

primus labs.com   ⌐ food safety programs ●

english | spanish

MENU
Auditing Programs
Download Audit Database
Field Auditor SOP's
Consulting
Document Development
Document Development Flow Diagram
Education & Training
Good Agricultural Practices (GAP)
Good Manufacturing Practices (GMP)
Hazard Analysis Critical Control Points (HACCP)
Lab Services
Quality Program Development
Recall Programs
Standard Operating Procedures (SOP)

Figure 10

document development
food safety programs ● ● ● industry issues
produce suppliers ● ● ● about primuslabs.com
produce buyers ● ● home ● contact us

forum ✦ site map
intranet ▽ search

primus labs.com   ⌐ food safety programs ●

english | spanish

Audit Programs Overview

These programs provide a third party verification for the client's safe food production program in such areas as ranch history, adjacent land use, fertilizer usage, water sourcing and usage, pest control, harvesting practices, employee safety and hygiene. A comprehensive questionnaire is provided to the growing operation for each ranch to be audited. At an agreed upon time, a PrimusLabs.com auditor arrives and conducts an onsite inspection

Field Auditing
Cold Room Storage
Cooler Facility
Packing Shed
Facility Audit
Self Audits
Visit the online Demo
Download the Audit Survey database

Thereafter the questionnaire and the information obtained during the site visit are analyzed, an audit report is compiled and submitted to the client detailing those items that do not meet regulatory requirements or conform to Good Agricultural Practices (GAP). PrimusLabs.com then certifies that the growing operation has met or exceeded its target standards.

Figure 11

Back

document development
food safety programs   industry issues
produce suppliers   about primuslabs.com
produce buyers   contact us

forum   site map

intranet   search

primus labs.com   ┌ **food safety programs**

english | spanish

Packing Shed

PrimusLabs.com provides an audit of the customer's packing shed to determine its conformance to government requirements as it pertains to Good Manufacturing Practices under 21CFR, part 110. All aspects of food safety are assessed including sanitation, maintenance, employees' personal hygiene practices, employee training, general sanitary practices, pest control programs, etc. A written report of the audit is issued to the client detailing those items that do not meet regulatory requirements or do not conform to Good Manufacturing Practices (GMP). PrimusLabs.com certifies the packing shed facilities that meet or exceed its target standards.

Packing Shed Audit Questionnaire in PDF Format
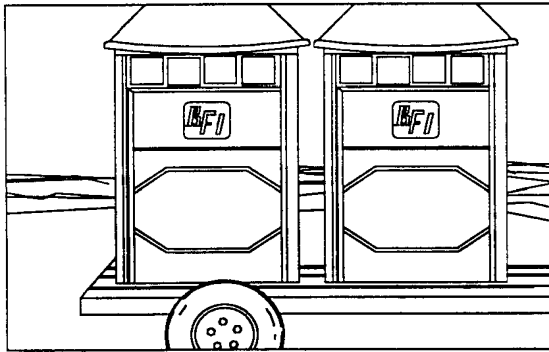
NOTE: If you don't have the required   PDF   software   Get Acrobat* Reader

Figure 12

document development
food safety programs ● ● ● industry issues
produce suppliers ● ● about primuslabs.com
produce buyers ● home ● contact us

forum site map
intranet search

primus labs.com | food safety programs ●

english | spanish
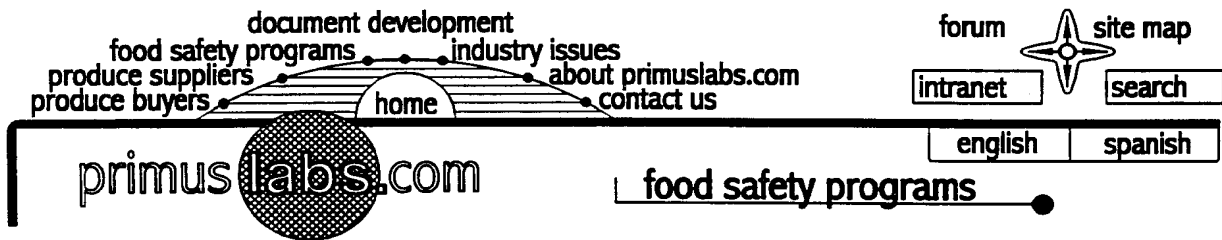
Field Auditing Program

This program provides a third party verification for the client's safe food production program in such areas as ranch history, adjacent land use, fertilizer usage, water sourcing and usage, pest control, harvesting practices, employee safety and hygiene. A comprehensive questionnaire is provided to the growing operation for each ranch to be audited. At an agreed upon time, a PrimusLabs.com auditor arrives and conducts an onsite inspection. Thereafter the questionnaire and the information obtained during the site visit are analyzed, an audit report is compiled and submitted to the client detailing those items that do not meet regulatory requirements or conform to Good Agricultural Practices (GAP). PrimusLabs.com then certifies that the growing operation has met or exceeded its target standards.
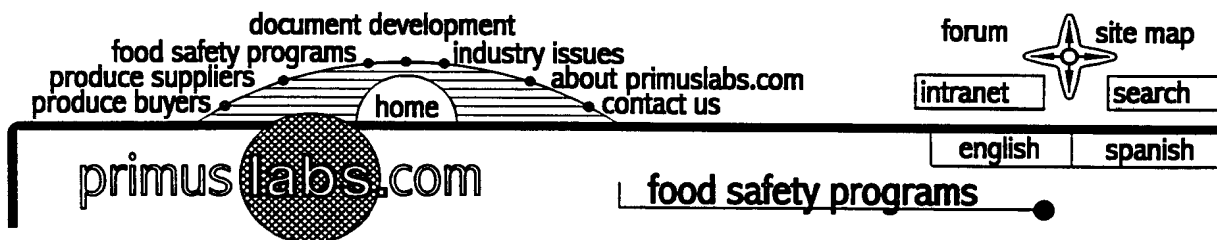
Ranch Audit Questionnaire
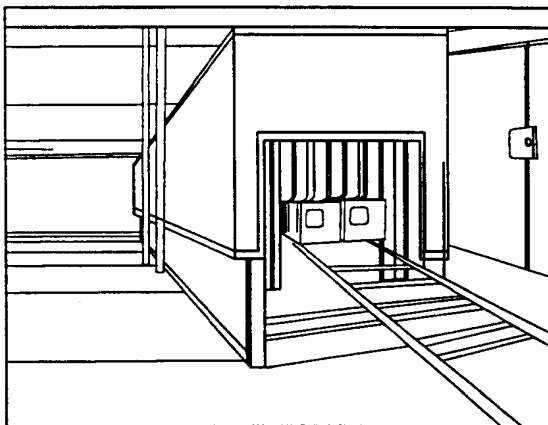Harvest Crew Audit Questionnaire

See A Field Audit Demo

Figure 13

document development
food safety programs ● ● ● industry issues
produce suppliers ● about primuslabs.com
produce buyers ● home ● contact us

forum   site map
intranet   search

primus labs.com   ┗ **food safety programs**   ●

english   spanish

Cooler Audits

This program provides a third party verification for the client's safe food production program.
PrimusLabs.com provides an audit of the customer's cooler facility to determine its conformance to
government requirements as it pertains to Good Manufacturing Practices under 21CFR, part 110.
All aspects of food safety are assessed including sanitation, maintenance, employee personal hygiene
practices, employee training, general sanitary practices, pest control programs, etc.

A written report of the audit is issued to the client detailing those items that do not meet regulatory
requirements or do not conform to Good Manufacturing Practices (GMP). PrimusLabs.com certifies
the cooler facilities that meet or exceed their target standards.

Cooler Audit Questionnaire in PDF Format

NOTE: If you don't have the required   PDF   software   Get Acrobat*
                                                        Reader

Figure 14

13/14

Food Safety Manual Development Program
Fresh Produce

The concern with food safety and hygiene in the food industry and the possibility of foodborne illness has prompted private organizations and regulatory agencies to develop guidelines and proceedures to help minimize the contamination risks associated with food handling.

PrimusLabs.com has responded to the needs of its clients and has customized a Food Safety Development Program for implementing food safety programs specifically for growing and packing operations. Through this program, PrimusLabs.com provides the producers of fruits and vegetables the tools necessary to create a customized Food Safety and Hygiene Manual.

In order to access the Food Safety Manual Development Program, please register your company information, then you will be provided with an Access Code and password. If you are already registered, then key in your access code and password by clicking Access Code.

If you want to see all The Food Safety and Hygiene Manuals you can get, click here. They include: Hazard Program, GMP, GAP, SOP or Trace Recall Program.

PrimusLabs.com also offers consultation in implementing your food safety program with its staff of food safety professionals. If you wish to contact one of our professionals, click here.

Copyright © 1998
All Rights Reserved
PrimusLabs.com, Inc.
Santa Maria, California.

www.primuslabs.com   primus@primuslabs.com

If you have any questions, comments or suggestions about this site, please contact our web master at docdev@primuslabs.com.

Figure 15

14/14

TRACE RECALL PROGRAM

<u>Go to Register Information...</u>

A Trace Recall Program consists of various activities that must be done in order to trace and recall (or dispose) a product that has already been distributed, and might be defective or harmfull for the consumer's health. These activities could be done in an urgent way depending on how serious the situation is.

To achieve this, it is necessary to keep an updated agenda of all the people who are involved in this program, therefore this module has the objective to identify the personal data of those people. It is necessary to at least place the name(s) of the people in charge of each area or department. If you have the complete information of each person, please register it.

Responsible persons for the areas or departments involved in this program, are:

- President of the Company, and alternate.
- Recall Coordinator, and alternate.
- Manager of Production/Harvesting, and alternate.
- Manager of Cooler/Distribution, and alternate.
- Sales Manager, and alternate.
- Attorney, and alternate.

If you do not register the necessary information, you can not consult or print this manual.

<u>Go to Register Information...</u>

www.primuslabs.com   primus@primuslabs.com

Copyright © 1998
All Rights Reserved
PrimusLabs.com, Inc.
Santa Maria, California.

If you have any questions, comments or suggestions about this site, please contact our web master at docdev@primuslabs.com.

Figure 16

INTERNATIONAL SEARCH REPORT

A.	CLASSIFICATION OF SUBJECT MATTER
IPC(7)	: G06F 19/00; G06F 17/60; A23L 1/00
US CL	: 705/7; 426/809; 340/286.09

According to International Patent Classification (IPC) or to both national classification and IPC

B.   FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
    U.S. : 705/7; 426/809; 340/286.09

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Dialog, ProQuest, Corporate ResourceNet, EAST

C.   DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GAITHERSBURG. SUBWAY Restaurants' Independent Purchasing Cooperative Selects Global eXchange Services for E-Commerce Technology to Enhance Food Safety Initiatives, 1999.	1,12,23
Y,P	GE Information Services. Entering the Extranet Era: How Extranets Can Help Create the Intelligent Supply Chain. GE, 1999, see pages 1-16.	1,12,23,10,11,21,22,31,32
A	PLEASANTON. PeopleSoft Offers Complete Supply Chain Management Solution for the Food and Beverage Industry. Business Wire, 7 Feb. 2000.	1-32
Y,P	PLANO. FreshLoc Ushers in New Era for Food Safety; Technology Available to Monitor Food Freshness "from Farm to Fork". Business Wire, 1 May 2000.	1,9-12,20-23,30-32
Y	KULLER, Bob. Compliance Issues and the Pharmaceutical Lab. Health Management Technology, June 1999, v20, n5, see pages 27-28.	6-8,17-19,27-29,9,20,30
X --- Y	US 5,939,974 A (HEAGLE et al) 17 August 1999 (17.08.1999), see col. 6-17.	1,2,4,12,13,15,23,25 --------------------- 6-8,17-19,27-29
X --- Y	US 5,900,801 A (HEAGLE et al) 04 May 1999 (04.05.1999), see col. 1-12.	1,2,4,12,13,15,23,25 --------------------- 3,5,14,16,24,26

☒ Further documents are listed in the continuation of Box C.   ☐ See patent family annex.

Date of the actual completion of the international search	Date of mailing of the international search report
22 January 2001 (22.01.2001)	**20 February 2001 (20.02.01)**

Name and mailing address of the ISA/US	Authorized officer
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Tariq Hafiz *James R. Matthew*
Facsimile No. (703)305-3230	Telephone No. 703.305.3900

Form PCT/ISA/210 (second sheet) (July 1998)

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	SEIVER, Owen. Grading Systems for Retail Food Facilities: A Risk-based Analysis. Journal of Environmental Health, Oct. 2000, v63, n3, p22, 6p, see page 3.	5,16,26
Y,P	BRANDT, Laura. Technology, Services, Instrumentation. Prepared Foods, v169, n8, pg 85. see para. 3 page 1.	6-8,17-19,27-29
Y	US 5,884,247 A (CHRISTY) 16 March 1999 (16.03.1999), see page 1, column 1.	3,14,24
Y,P	ST. LOUIS. Business Response, Inc. Adds Martindale-Hubbell To Recall Registration Web Site. PR Newswire, 6947, Oct 22, 1999, see page 1.	9,20,30